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ABSTRACT

A review of pertinent research on the adaptation of ethnic minority elderly to life-threatening events (personal, man-made, or natural) exposes voids in the research, presents methodological considerations, and indicates that ethnic minority elderly are disproportionately victimized by life-threatening events. Unusually high numbers of fatalities/injuries are found among the aged and minorities after natural disasters. This fact may be partially attributed to physiological deficiencies, sociocultural factors, and/or economic circumstances of the elderly and minorities. However, there is conflicting evidence regarding the psychological impact of disasters on the elderly, therefore other mitigating variables need to be explored before age differences in emotional adaptation can be more fully understood. In addition to natural disasters, life-threatening events may take the form of illness or injury of self or loved one, war, vehicular accidents, explosions, collapse of buildings. This research review manifests some methodological concerns (issues of cultural encapsulation, culturally sensitive classifications, the influence of folk beliefs on decision-making, and appropriateness of survey instruments/items/scaling procedures) and underscores the need for future studies of the aging process, ethnicity, and adaptation to the stresses in life. (AN)

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Minority Elderly Adaptation to Life-Threatening Events: An Overview with Methodological Consideration

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Abstract

Information on ethnic minority elderly and their adaptive reactions to life threatening events and stress is summarized. Although little of the research has focused specifically on ethnic minorities or the elderly, the physical setting, sociocultural and economic circumstances, perceived control and age highly interact to contribute to a differential and increased impact of natural disasters on these groups. Research with ethnic minority elderly presents some methodological concerns which are identified. Issues of cultural encapsulation, variation within ethnic groups, culturally sensitive classifications, appropriateness of survey instruments, items, scaling procedures, and the influence of folk beliefs on decision making are explored.

Minority Elderly Adaptation to Life-Threatening Events: An Overview with Methodological Consideration[1]

In December 1975, as a consequence of heavy rains and rapidly melting snow packs, major flooding occurred throughout the Puget Sound region of Western Washington. People in rural farmland areas lost millions of dollars in property, livestock herds and valuable personal belongings. A few lost a lifetime effort.

I was called in to provide technical assistance to the State Office of Emergency Preparedness, during and after the flood. I was overwhelmed at the extent of the damage, the personal grief and sufferings of those who lost their livelihoods. I was especially intrigued by the differential coping strategies used by different people to deal with the flood and the immediate aftermath, especially among the American Indian groups. Overall, I observed that the Indian residents of Nisqually and Muckleshoot were seemingly less distressed at the flooding, the damage and the cleanup efforts than the non-Indian victims in nearby rural communities; Indian victims seemed to accept the event as just another act of nature over which they have no control. Whereas non-Indian elderly victims commented more openly and bitterly

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about their futures, the few Indian elderly I observed had very little to say about their losses and future housing plans.

Those unplanned observations together with some knowledge of the experiences of others confronted with life-threatening events raised a number of questions for me. Why the presence of apparent differential coping strategies among same environment but culturally different communities? What effects did attributions about the flooding have on the perception of the damage? To what extent do the perceptions of life-threatening events vary across developmental life stages and culturally distinct populations? Are behavioral reactions to problematic life events likely to change with age, and if so, what psychosocial factors contribute to the change? As factors, life-threatening events, developmental life stages, and ethnicity seemingly have the possibility to generate many more questions than we have time to discuss.

This paper therefore will focus specifically on the adaptation and coping styles of ethnic minority elderly. particularly American Indians, to life-threatening event experiences. In this context research and literature themes are reviewed, gaps are identified and methodological considerations are explored.

Change and Life-Threatening Events

Regardless of the form, events are inextricably related to social change. If an event is perceived as potentially disruptive such that irreversible individual change might ensue, then anxiety, stress and fear are likely to emerge (Kiev, 1972). Some social scientists argue

that sudden changes in one's life-style orientation are more disrupting than anticipated gradual changes (Marris, 1974; Bettelheim, 1943; Baker & Chapman, 1962).

The impact of life-threatenting events on individuals and communities depends upon both the intrinsic nature of the event and the manner in which it is perceived. If particular events are considered life-threatening, individuals are apt to: (1) identify an effective coping strategy to deal with it; (2) if strategies are lacking, search for viable alternatives; and (3) accept the event as impervious to any known coping strategy (Pearlin & Schooler, 1978). The relative effect of events also can vary with the amount of previous experience one has with the type of event. For example, elderly black males were found to fear the effects of crime more than black women and presumably more than they did when they were younger (McAdoo, 1979).

Life-threatening events can take many forms and can be easily classified according to environmental/situational and personal categories. Personal events, for example, may be an acute or chronic illness, bereavement or a debilitating injury. Environmental/situational events can be subdivided into natural and man-made categories. Man-made events are exemplified by thermonuclear war and threats, vehicular crashes, fires, explosions and a sudden erosion or collapse of a man-made construction, e.g., buildings, stadiums or earthen dams. Natural occurring life-threatening events are usually thought of as earthquakes, floods, hurricanes, tornadoes, typhoons and tsunamis. Life-threatening events can affect anyone regardless

of age; however, the elderly, especially those impoverished ethnic-minorities, are more likely to be affected than their middle and upper class nonminority counterparts.

Natural Disasters and Ethnic Minority Elderly

On the evening of April 10, 1979, one of the most violent and destructive tornadoes in United States history struck the city of Wichita Falls, Texas. With winds in excess of 200 miles per hour, this tornado left in its wake an awesome path of destruction. More than 3,000 of the 4,800 homes in the area were completely destroyed or left uninhabitable; property damage exceeded $300 million, 20,000 persons were left homeless, 47 people died and hundreds suffered serious injury (Glass, Craven, Bregman, Stoll, Horowitz, Kerndt, & Winele, 1980). While the consequences of disasters are high, it should be recognized that they are borne unequally by various segments of society. The elderly and minorities in particular appear to be disproportionately victimized, a point consistently presented by Red Cross fatality counts (Trainer & Hutton, 1972; Hutton, 1976). In Wichita Falls, for instance, those persons 60 years of age and older experienced a rate of serious and fatal injuries seven times that for those under 60 (Glass et al., 1980), and after a Worcester tornado Wallace (1956) found that 24 percent of the known deaths were over 60 years of age. In the New Orleans area the effects of hurricane Audrey led to extremely high numbers of fatalities and injuries both for blacks and the elderly (Bates, Fogleman, Parenton, Pittman & Tracy, 1963).

The unusually high number of fatalities and injuries among the aged and minority can be attributed to a number of situational and personal factors. Certainly physiological deficiencies, such as reduced reaction time and sensory impairments, contribute to the decreased mobility and response of the elderly. Moreover, it may be that the elderly either do not respond or respond inaccurately to disaster warnings. Impoverished minorities also may feel powerless, perhaps knowing that their dwellings are structurally weak, and that they have no place to go in order to escape the event. Additionally, minorities simply may not trust the authorities who declare and announce the event.

Differential reactions to warnings of pending natural hazards is a potent problem for elderly and minorities. In their study of response to the 1965 Denver flood, Drabek and Stephenson (1971) found that the sources to which people turned to interpret or confirm warning information was significantly related to ethnic and social class characteristics. Lower class and Spanish American persons less frequently consulted institutional authorities than did middle class individuals and Anglos. There is also evidence that older persons are less likely to receive warnings in disaster situations (Friedsma, 1961) and, even if warnings reach them, they are less likely to interpret the warnings as true (Friedsam, 1961; Mack & Baker, 1961; Kates, 1971). In disaster situations requiring evacuation the aged have also been shown to be less likely to evacuate and, when they do evacuate, do not move as far from the threat area

as younger persons (Friedsam, 1962).

Little data are available regarding ethnic variation to warning response. However, in his study of the flood in Eagle Pass, Texas, Clifford (1956) found differences in locus of decision making regarding warnings response in Hispanic and Anglo families. A comparative study of responses to the 1972 earthquake in Managua, Nicaragua and the 1972 flash flood in Rapid City, South Dakota, revealed different adaption patterns in the two cultures. The Latin American normative structure led to reliance on kinship ties during recovery whereas the Rapid City victims turned to government agencies or institutional recovery modes (Bolin & Trainer, 1978).

In addition to the disproportionate number of casualties during disasters, the elderly and minorities experience greater difficulty during the recovery phase than other groups (Miletti, 1975; Moore, 1958; Cohen & Poulshock, 1977). Both groups tend to have fewer economic resources on which to fall back, are more likely to be retired or unemployed, and often have limited or fixed incomes, inadequate insurance coverage, and difficulty meeting credit and financing criteria to secure loans for reconstruction and replacement costs (Dacy & Kunreuther, 1969; Cohen & Poulshock, 1977; Nelson & Winter, 1975; Moore, 1958; Bolin, 1976; Bolin & Trainer, 1978).

Although minorities and elderly need greater extrafamilial assistance during recovery (Moore, 1958; Friedsam, 1962), studies examining the utilization of recovery assistance have revealed a "pattern of neglect" (Kilijanek & Drabek, 1979). Whites have been

shown to receive significantly more help in recovery from community resources (Moore, 1958) as well as from relatives and friends (Erickson, Drabek, Key & Crowe, 1976). The elderly have also been shown to have lower utilization or organizational relief efforts (Kilijanek & Drabek, 1979; Erickson et al., 1976; Bolin, 1976) and kin-based aid for recovery (Bolin, 1976). It has been suggested that the low utilization of institutional resources among the elderly is attributable to lack of awareness of possible aid sources, limited access to disaster aid centers (Bolin & Klenow, 1979), and their sensitivity to the stigma associated with welfare which may lead to avoidance of assistance programs perceived as such (Huerta & Horton, 1978; Poulshock & Cohen, 1975). Additionally, the aged do not cope well with the physical problems of cleanup and repair (Huerta & Horton, 1978; Bolin & Klenow, 1979) and are slower to respond to problems of reconstruction (Bell, 1976; Kilijanek & Drabek, 1979). They are also more susceptible to con artists in home construction and repair (Cohen & Poulshock, 1977; Huerta & Horton, 1978). However, the evidence of their ability to reestablish housing equivalent to their predisaster level in comparison with younger victims is conflicting (Bolin, 1976; Cohen & Poulshock, 1977).

Psychological Reactions to Life-Threatening Events

In addition to the structural and organizational aspects of the recovery process, there is a growing body of empirical evidence regarding the psychological consequences of life-threatening events

among ethnic-minority elderly. However a review of the literature available on the subject reveals inconsistent findings. Non-white disaster victims have been shown to experience greater negative impact in perceptions of physical and mental health (Sterling, Drabek, & Key, 1977). It has been suggested that the elderly have a lower capacity to respond to stress (Bolin & Klenow, 1979), and Friedsam (1961) has contended that older persons experience a greater sense of loss and deprivation following a disaster than do younger victims, which may be expalined by loss of mortgage-free homes, and sentimental and irreplaceable items, representing a lifetime of work and experience. These findings have, however, been refuted by a number of researchers. In their study of victims of hurricane Agnes, Cohen and Poulshock (1977) found the elderly to be emotionally more resilient than younger disaster victims. Huerta and Horten (1978) also found older persons experience less despair and more confidence in being able to survive in spite of financial losses than younger victims, regardless of the degree of damage incurred. They also found no differences between age groups with respect to the subjective losses experienced in the destruction of valued objects of possessions. Kilijanek and Drabek (1979) found elderly disaster victims to be no more anomic, alienated, or deficient in interpersonal and crisis management skills than older nonvictims. Although Bell (1976, 1978) also reported less psychological stress and a better adaptation to the demands of recovery among the elderly than other age groups

following the 1975 Omaha, Nebraska tornado, it has been suggested that this may in part have been due to the high average income of the elderly included in his sample (Kilijanek & Drabek, 1979). Bolin (1976), however, in studying the population affected by the 1972 Rapid City, South Dakota flood, found that families later in the life cycle experienced greater long-term emotional impact. Considering the conflicting evidence regarding the psychological impact of disasters on the elderly, other mitigating variables need to be explored before age differences in emotional adaption can be more fully understood.

While perhaps the most dramatic, disasters are but one form of life-threatening events which create stress. In addition to and overlaying the stress produced by these large scale disasters are the more prevalent and persistent agents of stress that daily impinge on individuals, and the minority elderly in particular. The burden of responsibilities, reversals in fortune, emotional conflicts, disease, and physical disorders strain resources and present threats to an individual's well-being. Varghese and Medinger (1979) emphasize in their excellent and thorough review of minority aging and stress that minority elderly "often face double jeopardy with respect to the impact of stress in their lives; not only are they exposed to greater numbers of stressors, they also have fewer coping resources after a lifetime of financial deprivation, subordination to other groups and systematic exclusion from access to social and economic opportunity" (p. 97).

Dispositional and situational factors can mediate the impact of stress upon the minority elderly either by intensifying or diminishing the person's appraisal of the threat. Because they possess fewer personal resources for coping effectively with stressful circumstances, the impact of stress upon the minority aged is often greater than upon the young. Many elderly people find that their access to and control of social and economic resources is restricted with the loss of social roles in the family and at work. These problems of decreasing power resources associated with aging make the elderly more vulnerable to the impact of social and biological stressors such as illness, inadequate housing, and bereavement (Blau, 1964, 1973; Dowd, 1975).

Varghese and Medinger (1979) emphasize two dimensions to the stress associated with the impoverishment of minority aged. First, they are exposed to a greater number of stressors, such as poor health, poor nutrition, inadequate housing, and discrimination. Secondly, their impoverishment and social discrimination work to restrict their access to the resources necessary for controlling the greater magnitude of stress which they experience. This inability to mobilize the necessary resources for handling potential threats to well-being increases the intensity of the stress (Lazarus, 1966). Impoverishment and discrimination deny the minority elderly access to and control over financial resources and supportive services such as medical care, legal aid, and transportation. Consequently, lacking the resources to counter the impact of stressors

often creates more stress than the circumstances in themselves (Varghese & Medinger, 1979).

Varghese and Medinger (1979) argue that "a lifetime of exposure to socially sanctioned discrimination and systematic exclusion from . . . opportunities for economic, educational and social betterment . . . can leave the aged minority person with little sense of personal control over his own destiny" (p. 104). Hence, perceived helplessness, a heightened sense of alienation, denial and powerlessness are prime considerations in present and future studies of ethnic-minority elderly. That there is a definite relationship between stress and perceived helplessness has already been established (Lazarus, 1966; Seligman, 1975); however, the nature of personal control, alienation and stressful reactions is an uncultivated area among ethnic-minorities in general and specifically among the respective elderly of these groups.

Perceived Personal Control and Adaptation

Evidence is mounting rapidly to support the influence of culturally grounded values and attitudes on the nature of perceived personal control and perceived threat (Burton & Kates, 1964; Sims & Bauman, 1972; Lefcourt, 1966; Gurin, Gurin, Lao & Beattie, 1969). Studies using locus of control measures indicate that blacks and lower-class people are more external (fatalistic) than whites and middle-class people (Lefcourt, 1976; Strickland, 1972). Higher measures of externality are also reported for American Indians (Coleman, Campbell,

McParland, Mood, Weinfield & York, 1966; Lefcourt, 1966).

Externality has generally been assumed to be maladaptive. Externals show less initiative in efforts to attain goals and control their environments (Phares, 1976), and exhibit lower achievement motivation (Duke & Nowicki, 1973) than do internally oriented people. Varghese and Medingher (1979) distinguish between situations of low and high constraint. When circumstances do not limit a person's capacity to intervene in the environment on his own behalf, the association of fatalism with maladaptive behaviors is probably valid. They suggest, however, that fatalism may well be an adaptive response to stress for those faced with circumstances that reduce their ability to intervene, where forces outside the individual severely limit his capacity to pursue his objectives. Poverty and ethnic discrimination restrict the latitude of choice in daily activity and coping style for the minority aged. In these circumstances of high constraint, fatalism represents accurate reality testing, a reliable indicator of mental health. Thus it is realistic to develop a generalized expectancy for external control of reinforcement in environments that restrict behavior. Fatalism is not correlated with poor adjustment in such situations (Wolk, 1976). By shifting blame for failure and low status onto forces outside of themselves through systems blame, minority aged can relieve themselves of self-blame that might otherwise stem from the inability to improve their position (Gurin, et al., 1969; Rotter, 1975).

Summary

In this short overview information is summarized about ethnic-minority elderly and some of their adaptive reactions to life-threatening events and stress. Natural disasters, as one source of perceived threat, are not in and of themselves discriminatory; tornadoes do not actively seek to impact specific groups. However, the physical setting, sociocultural and economic circumstances, perceived control and age highly interact to place the ethnic-minority in a position of much greater vulnerability than nonethnic-minority elderly.

A heightened awareness of the importance of considering factors contributing to the differential impact of natural disaster on the elderly and minorities has recently developed. Despite the exponential growth of natural hazards research during the past decade, however, relatively few studies have focused on these groups. Ethnicity and age are more often considered as secondary variables, if at all. However, because life-threatening events, whether natural or man-made, produce stressful situations which require adjustment by individuals and their social systems to unexpected life changes (Melick, 1978), the relation of ethnicity and aging to this area of inquiry in the social sciences offers a natural laboratory for further exploration of adaptive behavior.

Promoting and conducting research in the area of ethnicity and aging presents some interesting and challenging methodological problems; the inclusion of life-threatening events as another dimension further

compounds the complexities. In the next section some of the more problematic issues are identified and briefly explored.

Methodological Concerns for Studying Ethnicity, Aging and Adaptation

A dearth of information exists on ethnic-minority elderly in general (Bengtson, 1979) and in comparative cross-cultural studies involving adaptive strategies and life-threatening events (Drabek, 1970). The small amount of information available on the subject can probably be attributed to the tendency of researchers to first explore the problems in general and also to the awareness that comparative cross-cultural studies in themselves require additional research considerations.

At the conceptual and theoretical level many questions are unanswered and much remains to be explored (Taylor, 1978). Part of the general work, however, includes the problem of cultural encapsulation; that is, gains in knowledge tend to assume a generalizability across populations that is unjustified and unreliable. To break the encapsulated methodological and analytic procedures requires more than merely extending cells to include ethnicity and adding items to control for cultural bias. Ethnic and culturally distinct communities are not independent variables merely to be manipulated along with a supposed contrasting community. Ethnicity is a dynamic phenomenon pervading the entire social ecology of one's contextual milieu. Adding on an ethnic-minority group as a variable

to a preestablished research design is presumptuous and reflects, in many instances, the methodological encapsulation of the investigation.

"Does ethnicity make a difference?" asks Vern Bengtson (1979). Replying with a qualified "Yes," he suggests some important considerations and reflects concern for broadening ethnicity as a construct to include economic class distinctions, individual variations within groups as well as age and sex. Incorporating these considerations to account for ethnic variation is no small matter. For instance, consider the problems associated with the construct "American Indian" as an ethnic classification. By itself the construct is empty and far too inclusive to be meaningful. There are enormous geocultural differences which can be accounted for by degree of traditionalism/acculturation, tribal affiliation, degree of individual identification, etc. Merely adding on American Indian category to a research design introduces enormous unaccountable and undocumented sources of error. The same analogy could be applied to the use of other broad ethnic-minority classifications like Asian-American, black and Hispanic.

Ethnic-minorities are very likely to have very difficult and unique perspectives on aging (Bengtson, 1979), a problem which further compounds the identification of ethnic-appropriate age range categories. For example, in the ethnic and age span tabulations of hurricane Audrey victims (Bates, Fogleman, Parenton, Pittman, & Tracy, 1963), culturally insensitive age categories were used. Use

of the broad age categories presumes that blacks consider themselves as elders at age 60 or older. Typically, specific ages or age spans are used to define the elderly but, to the contrary, elderly status can be assumed just as well appropriately on the basis of perceived familial or group responsibility, e.g., becoming a grandparent or an achieved status within one's sociocultural environment, such as keeper of sacred religious artifacts. If an elderly strata or variable is used, researchers should identify the specificity of the life stage as perceived and defined by the target populations. This, of course, would control for one source of error but likely introduce others. Analysts may find themselves comparing one group whose definition is age-related to another where elderly status is role-defined.

Certanly expanding research designs in the area of aging and ethnicity involves careful evaluation of the cultural appropriateness of survey instruments, items and scaling procedures. The necessity for marshaling this cultural sensitivity in general is adequately addressed (Lonner, 1980; Brislin, Lonner & Thorndike, 1973), particularly for studies among America's ethnic-minority populations (Montero & Levine, 1977), among American Indian groups (Trimble, 1977), in cross-cultural studies on perceptions of natural hazards (Saarinen, 1974) and indeed on aging (cf. Gelfand & Kutzik, 1979). The importance of carefully controlling for cultural bias in research instrumentation becomes more evident when one realizes that the elders of ethnic populations are more apt to carry on folk

customs and beliefs than their younger counterparts. This is certainly true for many American Indian and Alaska Native tribal groups (Manson & Pambrun, 1979).

The importance of recognizing the influences of ethnicity on coping and adaptation is finally receiving recognition and attention (cf. Dyal & Rempel, 1979; Trimble, 1979, 1980). Ethnic-minority populations may not simply react and adapt to stressful life-threatening events in the same manner as other populations. Folk beliefs as well as personal and own-group experience with threatening events strongly influence the nature of adaptive strategies. For example, we recently learned that many Eastern Cherokees living in or near Tahlequah, Oklahoma respond passively towards tornado warnings and watches. The land apparently was considered sacred when first settled in the early 1800s and as long as one can remember a tornado has never touched down in that area. Thus folk beliefs about natural hazards and individual adaptations and reactions to warnings can vary considerably, despite the widespread conventional defensive, almost fearful reactions which seem to dominate.

The stance taken toward life-threatening events is an integral part of an overall folk orientation to events in general. Many tribes and culturally unique communities see "natural events" such as severe weather phenomena as products of sorcery and magic. Schneider (1957) points out the Yaps attribute typhoons to the supernatural causes of a sorcerer, rather than securing property and possessions. Whereas

Westerners typically see typhoons as natural phenomena, the Yaps see them as the work of people who can control those forces. The Yaps' perceptions as to the causes of typhoons are consonant with their generalized process of attributing most causes to sorcery. Sorcery can be an integral part of the life-style orientations of the many traditional, culturally diverse communities.

Folk beliefs, adaptation strategies and reactions to life-threatening events play an integral part in individual decision-making processes. Slovic et al. (1974) maintain that "the tendency of people to misperceive the degree to which causation is present in a probalistic environment has important implications for decisions regarding natural hazards" (p. 193). Analysis of decision-making processes involves far more than casting measures in nonculturally specific terms. While many technologically-oriented societies are more apt to make decisions grounded in aspects of subjective probability, many nontechnological groups render decisions in absolute, straightforward dichotomous terms. The current body of knowledge on decision-making almost exclusively favors a Western, technologically-oriented perspective. How culture and ethnicity influence decision-making is a fertile area for further exploration (Slovic et al., 1974).

To investigate various aspects of adaptation and reaction to life-threatening events requires the development of new techniques and/or elaborate modification of conventional behavioral and social

science methodologies. Future research in the field can be greatly advanced through cross-discipline collaboration where the approaches of various disciplines can be integrated to promote fuller understanding and description. Cultural bias needn't rear its ugly head; but it does on occasion when investigators are unaware of their own biases and encapsulated viewpoints. Nonetheless, present and figure studies of the aging process, ethnicity, and adaptation to the stresses in life, hold promise for exciting research opportunities. In the course of pursuing these research efforts attention must be given to insure the relevance of techniques and methodologies in communities where our notion of science is really a foreign concept.

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